

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims

1. **(currently amended)** A method for detecting and monitoring wafer probe stability including the steps of:
 - probing each die on a wafer;
 - for each die determining whether the result of the probe is a pass or a fail;
 - if the result of a probe is a fail, re-probing the die and determining whether the re-probe is a pass or a fail;
 - once all the dies have been probed determining the rate of die re-probes that lead to passes;
 - comparing the rate of passes on re-probes to a pre-determined limit; **[[and]]**
 - if the rate of passes on re-probes is greater than the predetermined limit, assigning the probe status as unstable; **and**
 - reporting the unstable probe status.**
2. **(currently amended)** A method for detecting and monitoring wafer probe stability as claimed in claim 1 wherein the step of **assigning reporting** the probe status as unstable includes setting a flag on the monitoring device.
3. **(currently amended)** A method for detecting and monitoring wafer probe stability as claimed in claim 2 wherein the step of **assigning reporting** the probe status **[[to]] as** unstable further includes sounding an alarm and/or providing an indicator on a monitor.
4. **(previously presented)** A method for detecting and monitoring wafer probe stability as claimed in claim 2 wherein the step of assigning the probe status to unstable further includes disabling the probe equipment.

5. **(previously presented)** A method for detecting and monitoring wafer probe stability as claimed in claim 1 wherein the step of re-probing any die that fails on the first probe is preformed a predetermined number of times.

6. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 5 wherein re-probing is preformed only once for each die that fails on the first probe.

7. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 5 wherein the step of re-probing may be performed more than once.

8. **(previously presented)** A method for detecting and monitoring wafer probe stability as claimed in claim 1 further including the step of creating a probe reference file for each wafer.

9. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 8 wherein the probe reference file contains a re-probe limit, re-probe recovery rate information, a bin re-probe limit, a sensitivity limit and the recovery rate for re-probing.

10. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 9 wherein the re-probe recovery rate information includes a limit value.

11. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 10 wherein for wafers with more than a few hundred dice the limit is 2%.

12. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 10 wherein the re-probe rate recovery limit is set as three times the standard deviation of the re-probe recovery rate from previously supplied data.

13. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 9 wherein the sensitivity limit includes data on the number of sensitive dies expected in a wafer.

14. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 9 wherein the recovery rate for re-probing is determined as:

$$\frac{(\text{number of recover from fail to good} - \text{recovery from sensitivity limit to good})}{(\text{total number of tested good die})}$$

15. **(previously presented)** A method for detecting and monitoring wafer probe stability as claimed in claim 8 wherein the method further includes the step of generating a report from the probe reference file for each completed wafer test.

16. **(original)** A method for detecting and monitoring wafer probe stability as claimed in claim 15 wherein the report includes device identification information and fail to good probe information.

17. **(original)** A system for detecting and monitoring wafer probe stability ~~including the system arranged to~~ comprising:

means for probing ~~probe~~ each die on a wafer;

~~for each die~~ means for determining ~~determine~~ whether the result of the probe is a pass or a fail for each die;

~~if the result of a probe is a fail,~~ means for re-probing ~~re-probe~~ the die if the result of a probe is a fail and means for determining ~~determine~~ whether the re-probe is a pass or a fail;

~~once all the dies have been probed~~ means for determining ~~determine~~ the rate of die re-probes that lead to passes once all the dies have been probed;

means for comparing ~~compare~~ the rate of passes on re-probes to a pre-determined

limit; and

~~if the rate of passes on re-probes is greater than the predetermined limit, means~~
for assigning ~~assign~~ the probe status as unstable if the rate of passes on re-probes is greater
than the predetermined limit.

18. (previously presented) A method for detecting and monitoring wafer probe stability as claimed in claim 3 wherein the step of assigning the probe status to unstable further includes disabling the probe equipment.